

Amendment to the Claims

The following listing of claims replaces all prior claim versions and listings for this application.

1-7. (Cancelled)

8. (Currently Amended) A synthetic peptide capable of eliciting antibodies to p53, which peptide is 7 to 30 amino acid residues in length of a variable region of an anti-p53 mAb and contains a sequence of a CDR of the heavy or light chain of the anti-p53 mAb, and salts thereof, wherein the sequence of the CDR is selected from mAb 240, mAb 246 and mAb 421.

9. (Previously Presented) A synthetic peptide according to claim 8, containing a sequence of the CDR2 or CDR3 of the heavy chain, or of the CDR3 of the light chain, of an anti-p53 mAb.

10. (Previously Presented) A synthetic peptide according to claim 8, wherein the peptide contains a sequence selected from the group of sequences consisting of Ic (SEQ ID NO:11), IIa (SEQ ID NO:12), and IVc (SEQ ID NO:20).

11. (Previously Presented) A synthetic peptide according to claim 10, wherein the peptides are selected from the group consisting of peptides V-IX of the sequences:

Peptide V: Tyr-Tyr-Cys-Gln-His-Ile-Arg-Glu-Leu-Thr-Arg-Ser-Glu-Gly-Gly-Pro-Ser (SEQ ID NO:21),

Peptide VI: Gly-Val-Tyr-Tyr-Cys-Trp-Gln-Gly-Thr-His-Ser-Pro-Leu-Thr-Phe-Gly-Ala-Gly-Thr-Lys (SEQ ID NO:22),

Peptide VII: Gly-Asp-Ile-Asn-Pro-Asn-Asn-Gly-Tyr-Thr-Ile-Tyr-Asn-Gln-Lys-Val-Lys-Gly-Lys-Ala (SEQ ID NO:23), and salts thereof.

12. (Previously Presented) A synthetic peptide according to claim 8, wherein the peptide contains the sequence: Gln-His-Ile-Arg-Glu-Leu-Thr-Arg (SEQ ID NO:11) or Tyr-Tyr-Cys-Gln-His-Ile-Arg-Glu-Leu-Thr-Arg-Ser-Glu-Gly-Gly-Pro-Ser (SEQ ID NO:21).

13-16. (Cancelled)

17. (Previously Presented) The peptide of claim 8 in the form of an organic or inorganic salt thereof.

18. (Cancelled)

19. (Previously Presented) The peptide of claim 18, wherein the peptide is selected from the group consisting of:

(i) peptides, herein designated Ia-Ib, containing the CDR2 and CDR3, respectively, of the heavy chain (240VH), and peptide Ic containing the CDR3 of the light chain (240VL), of the anti-p53 mAb 240, of the sequences: (Ia) Glu-Ile-Asp-Pro-Ser-Asp-Ser-Tyr-Thr-Asn-Tyr-Asn-Gln-Asn-Phe-Lys-Asp (SEQ ID NO:9), (Ib) Leu-Leu-Arg-Tyr-Phe-Ala-Met-Asp-Tyr (SEQ ID NO:10), or (Ic) Gln-His-Ile-Arg-Glu-Leu-Thr-Arg (SEQ ID NO:11);

(ii) peptides, herein designated IIa-IIb, containing the CDR2 and CDR3, respectively, of the heavy chain (246VH), and peptide 11c containing the CDR3 of the light chain (246VL), of the anti-p53 mAb 246, of the sequences: (IIa) Asp-Ile-Asn-Pro-Asn-Asn-Gly-Tyr-Thr- Ile-Tyr-Asn-Gln-Lys-Val-Lys-Gly (SEQ ID NO:12), (IIb) Gly-Gly-Gly-Leu-Lys-Gly-Tyr-Pro-Phe-Val-Tyr (SEQ ID NO:13), or (IIc) Gln-Gln-Arg-Ser-Ser-Phe-Pro-Phe-Thr (SEQ ID NO:14);

(iii) peptides, herein designated IVa-IVb, containing the CDR2 and CDR3, respectively, of the heavy chain (421VH), and peptide IVc containing the CDR3 of the light chain (421VL), of the anti-p53 mAb 421, of the sequences: (IVa) Trp-Ile-Asp-Pro-Glu-Asn-Gly-Asp-Thr- Glu-Tyr-Ala-Pro-Lys-Phe-Gln-Gly (SEQ ID NO:18), (IVb) Tyr-Gly-Asp-Ala-Leu-Asp-Tyr (SEQ ID NO:19), or (IVc) Trp-Gln-Gly-Thr-His-Ser-Pro-Leu-Thr (SEQ ID NO:20); and

salts thereof.

20. (Previously Presented) A pharmaceutical composition comprising the peptide of claim 8 and a pharmaceutically acceptable carrier.

21. (Previously Presented) The pharmaceutical composition of claim 20, wherein the peptide contains a sequence of the CDR2 or CDR3 of the heavy chain, or of the CDR3 of the light chain, of an anti-p53 mAb.

22. (Previously Presented) The pharmaceutical composition of 21, wherein the peptide contains the sequence: Gln-His-Ile-Arg-Glu-Leu-Thr-Arg (SEQ ID NO:11) or Tyr-Tyr-Cys-Gln-His-Ile-Arg-Glu-Leu-Thr-Arg-Ser-Glu-Gly-Gly-Pro-Ser (SEQ ID NO:21).

23. (Cancelled)

24. (Currently Amended) The pharmaceutical composition of claim [[23]] 20, wherein the peptide is selected from the group consisting of:

(i) peptides, herein designated Ia-Ib, containing the CDR2 and CDR3, respectively, of the heavy chain (240VH), and peptide Ic containing the CDR3 of the light chain (240VL), of the anti-p53 mAb 240, of the sequences: (Ia) Glu-Ile-Asp-Pro-Ser-Asp-Ser-Tyr-Thr-Asn-Tyr-Asn-Gln-Asn-Phe-Lys-Asp (SEQ ID NO:9), (Ib) Leu-Leu-Arg-Tyr-Phe-Ala-Met-Asp-Tyr (SEQ ID NO:10), or (Ic) Gln-His-Ile-Arg-Glu-Leu-Thr-Arg (SEQ ID NO:11);

(ii) peptides, herein designated IIa-IIb, containing the CDR2 and CDR3, respectively, of the heavy chain (246VH), and peptide 11c containing the CDR3 of the light chain (246VL), of the anti-p53 mAb 246, of the sequences: (IIa) Asp-Ile-Asn-Pro-Asn-Asn-Gly-Tyr-Thr- Ile-Tyr-Asn-Gln-Lys-Val-Lys-Gly (SEQ ID NO:12), (IIb) Gly-Gly-Gly-Leu-Lys-Gly-Tyr-Pro-Phe-Val-Tyr (SEQ ID NO:13), or (IIc) Gln-Gln-Arg-Ser-Ser-Phe-Pro-Phe-Thr (SEQ ID NO:14);

(iii) peptides, herein designated IVa-IVb, containing the CDR2 and CDR3, respectively, of the heavy chain (421VH), and peptide IVc containing the CDR3 of the light chain (421VL), of the anti-p53 mAb 421, of the sequences: (IVa) Trp-Ile-Asp-Pro-Glu-Asn-Gly-Asp-Thr- Glu-Tyr-Ala-Pro-Lys-Phe-Gln-Gly (SEQ ID NO:18), (IVb) Tyr-Gly-Asp-Ala-Leu-

Asp-Tyr (SEQ ID NO:19), or (IVc) Trp-Gln-Gly-Thr-His-Ser-Pro-Leu-Thr (SEQ ID NO:20); and

salts thereof.

25. (Currently Amended) The pharmaceutical composition of claim [[23]] 20, wherein the peptide contains a sequence selected from the group of sequences consisting of Ic (SEQ ID NO:11), IIa (SEQ ID NO:12), and IVc (SEQ ID NO:20).

26. (Previously Presented) The pharmaceutical composition of claim 25, wherein the peptides are selected from the group consisting of peptides V-IX of the sequences:

Peptide V: Tyr-Tyr-Cys-Gln-His-Ile-Arg-Glu-Leu-Thr-Arg-Ser-Glu-Gly-Gly-Pro-Ser (SEQ ID NO:21),

Peptide VI: Gly-Val-Tyr-Tyr-Cys-Trp-Gln-Gly-Thr-His-Ser-Pro-Leu-Thr-Phe-Gly-Ala-Gly-Thr-Lys (SEQ ID NO:22),

Peptide VII: Gly-Asp-Ile-Asn-Pro-Asn-Asn-Gly-Tyr-Thr-Ile-Tyr-Asn-Gln-Lys-Val-Lys-Gly-Lys-Ala (SEQ ID NO:23), and

salts thereof.

27. (Previously Presented) The pharmaceutical composition of claim 20, further comprising one or more different peptides, wherein the different peptide is capable of eliciting antibodies to p53 and contains a sequence of a CDR of the heavy or light chain of an anti-p53 mAb, and salts thereof.

28. (Previously Presented) The peptide of claim 8, obtained by a process which comprises:

identifying a first monoclonal anti-p53 antibody capable of generating anti-idiotope anti-p53 antibodies in a subject immunized with the first antibody;

identifying at least one sequence of a CDR of the first anti-p53 mAb, wherein the sequence is a CDR2 or CDR3 of the heavy chain of the first anti-p53 mAb, or the CDR3 of the light chain of the first anti-p53 mAb; and

synthesizing peptides or salts thereof that contain the CDR sequence such that the peptides, salts, or derivatives thereof are capable of eliciting antibodies to p53 upon administration to a subject.